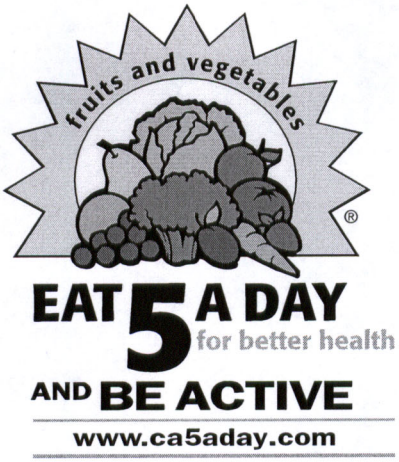
FORMATIVE RESEARCH SUMMARY REPORT

APRIL 2002

Physical Activity Integration Campaign



Cancer Prevention and Nutrition Section

California Nutrition Network for Healthy Active Families

REFERENCES

The following reports, developed in November-December 2001 and January 2002, form the basis for this summary report:

Strategies for Action: Integrating Nutrition and Physical Activity Promotion to Reach Low-Income Californians, by Prevention Institute

Literature Review: Lessons Learned from Physical Activity Interventions Targeting Low-Income Women, by Samuels & Associates

Physical Activity Marketing Trends: An Exploration of Successful Physical Activity Promotion Campaigns, by Brown-Miller Communications

Key Informant Interviews, Part I: Community-Based Organizations, by Brown-Miller Communications

Key Informant Interviews, Part II: Potential Partners and Funders, by Brown-Miller Communications

Concept Development and Message Testing for the Physical Activity Integration Campaign: Results from Focus Groups, by Juarez and Associates

Environmental Scans for Physical Activity: Formative Research in Three Low-Income Communities in California, by Samuels & Associates

Also consulted was the report, *Increasing Physical Activity: A Report on Recommendations of the Task Force on Community Preventive Services,* Centers for Disease Control, October, 2001.

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I. INTRODUCTION

The California Nutrition Network is planning a campaign to promote physical activity among California families with low incomes. The 2001 report, *Strategies for Action,* presented the results of the Cancer Prevention and Nutrition Section's Physical Activity and Nutrition Integration Committee planning meeting to identify key strategies for such a program. The study recommended that formative research enhance that process. As a result, the following formative research projects were completed:

A **Literature Review** explored intervention and non-intervention studies published after 1989 in peer-reviewed journals reporting on physical activity programs targeting low-income or ethnic minority women between the ages of 20 and 50 years.

A **Marketing Trend Analysis** reviewed twenty local initiatives and community outreach campaigns around the country designed to improve physical activity levels and reported on innovative strategies used with a variety of populations.

Key Informant Interviews with Community-Based Organizations were conducted with fifteen local leaders from city, school-based, nutrition, and church-based programs. Each interview asked about the barriers to physical activity and the motivators, resources, and tactics needed to create a successful health intervention program locally and statewide.

Key Informant Interviews with Potential Partners asked fifteen individuals whose programs and businesses support physical activity nationally or statewide about potential partnership and funding opportunities.

Focus Groups with low-income mothers were conducted in Los Angeles, Riverside, and Berkeley/ Oakland to develop concepts for promoting physical activity and testing potential campaign materials.

Environmental Scans in Oakland, Los Angeles, and Riverside assessed selected low-income areas for factors that may support or inhibit physical activity and a resource map for each community was produced.

This Summary Report presents conclusions and recommendations drawn from these reports with respect to program development and evaluation, with reference to theoretical principles and the recommendations of the CDC Task Force on Community Preventive Services. Brief summaries of each formative study follow the recommendations.

II. KEY PRINCIPLES FOR PROMOTING PHYSICAL ACTIVITY

A. Theoretical Background

Three models present useful underpinnings for developing programs to promote physical activity.

The Social-Ecological Model conceptualizes the social world as five spheres of influence that affect behavioral change: individual characteristics, interpersonal processes, institutional and organizational rules and policies, community networks, and public policy at the local, state, and federal levels. This model suggests that interventions designed to affect more than one sphere of influence will have a greater impact.

The Spectrum of Prevention provides a framework for developing such a multifaceted intervention by focusing beyond a primarily educational approach to community-wide systems change. Each level of the *Spectrum* targets successively broader arenas for change, moving from the individual and family to community norms, institutional practices, and laws. Interventions planned with action steps at each level of the *Spectrum* have the potential to produce greater change than would be possible by implementing a single strategy.

The *Transtheoretical Model* identifies five stages of change through which an individual progresses toward new behaviors. The five stages are precontemplation, contemplation, preparation, action, and maintenance.

Considered together, these models prompt for planning on multiple levels, recognizing the variety of forces and influences involved in modifying behavior.

B. Centers for Disease Control Recommendations

The CDC Task Force on Community Preventive Services issued recommendations for interventions in its 2001 report, *Increasing Physical Activity.* The report stresses that community-level programs should include activities suitable to local resources,

population characteristics, and settings. It recommends the following six interventions be part of comprehensive community programs for promoting physical activity:

Two informational approaches:
communitywide campaigns and point-of-decision prompts to encourage using stairs

Three behavioral and social approaches:
school-based physical education, social support interventions in community settings (e.g., setting up a buddy system or contracting with another person to complete specified limits of physical activity), and individually adapted health behavior change

One environmental and policy approach:
creation of or enhanced access to places for physical activity combined with informational outreach activities.

III. KEY FINDINGS FROM THE FORMATIVE RESEARCH

Planning at the local level will be most effective if it employs basic community organizing principles.

Key activities should include the following:

Involve the constituency in all aspects of planning, implementation, and evaluation of a program

Assess the community's needs, desires, attitudes, preferences, barriers, and motivations, using significant local input from organized community groups or an advisory board, then tailor programs to meet the needs, histories, and assets of the neighborhood they are to serve

Begin with the potential participants' current stage of involvement in physical activity (stage of exercise) and work to bring them to the next stage

Physical activity needs to be incorporated into already busy lives.

Low-income women recognize the benefits to be gained from physical activity and understand the complementary nature of physical activity and nutritious eating. However, they have busy lives with responsibilities for work, home, and children; for the most part their physical activity occurs in conjunction with carrying out those responsibilities. They are not generally aware of the recommendation that most days include 30 minutes of exercise; however, when informed of this goal, they feel that it is attainable.

5 KEY FINDINGS

- **Planning at the local level should employ community organizing principles**
- **Physical activity needs to be incorporated into already busy lives**
- **Activities are most likely to be adopted if they are seen as enjoyable, family-oriented, and close to home**
- **Activities should include social support in the form of a "buddy system" or a group class to stay motivated**
- **Campaign messages should "speak to" the target population**

Lack of personal safety is not regarded by potential participants as a critical barrier, but should still be addressed.

Although informants in the community-based interviews mentioned safety as a barrier to exercise, only prompting during the focus groups elicited comments from some par-

ticipants about safety as a barrier to such exercise as walking in one's neighborhood or traveling to a nearby park or facility.

Lack of access to or the cost of formal facilities may not be critical barriers at early stages of exercise but may need to be addressed at later stages.

The target population saw lack of time for physical activity as the main barrier to exercise; the cost of joining recreational facilities was also mentioned as a barrier. However, several communities around the country have demonstrated creative uses of existing free or low-cost facilities, and churches in several communities have developed popular free or low-cost physical activity programs.

Activities most likely to be adopted will be seen as enjoyable, family-oriented, and close to home.

Physical activity needs to be promoted as enjoyable, and include some things that can be done with children. The activity needs to be close to home, seen as fitting in with participants' lifestyles, and inexpensive or free. Utilizing a stage-of-exercise approach, the early stages of a program can emphasize walking, dancing, and park-centered sports that are already common to the target population's lifestyle, such as soccer and basketball, along with expanded use of existing free or very low-cost community resources. Good walkability scores in the communities of the environmental scan make developing walking programs a likely early approach in these pilot areas.

Activities should include social support in the form of a "buddy system" or a group class to stay motivated.

Built-in social support is an important way of keeping people involved in physical activity. Support could take the form of a "buddy system" or a group commitment to stay with a class for a given period of time. Building in social incentives, such as nutritious snacks following exercise, or physical incentives, such as water bottles and sweatbands, may encourage people to join a program. Reinforced results, including feeling healthier and looking better, along with the support of others, might keep them there.

Inspiration for useful programming ideas can be found from community-based organizations around the country.

Health departments, park and recreation departments, high schools, and others have developed successful physical activity programs at community venues such as schools, community centers, public recreation facilities, and public parks. These programs include senior walking clubs, adult and youth sports, swimming and aerobics, dance classes, and gardening programs. Several community churches have shown that continual advertising to potential participants and the built-in mutual support of church membership can result in well-attended physical activity programs. Such programs include on-site fitness centers, walking clubs, martial arts and aerobics classes, and nutrition classes.

Campaign messages should "speak to" the target population.

Messages should be in the primary language of the potential participant; in the pilot communities that means developing messages in both English and Spanish.

Messages should be disseminated not only through broadcast media but also at places that lend credibility, such as doctors' offices, clinics, and schools, as well as at frequently visited locales, such as grocery stores. Messages coming from doctors are particularly heeded.

Visuals should be colorful and readily understandable, with average-looking people from diverse backgrounds pictured in activities the population can relate to. For example, one aspect of the campaign should focus on a family component. The emphasis should be on fun. A variety of slogans should be used to appeal to the diversity of the audience.

Campaign materials should stress the benefits of better health, greater self-esteem, positive attitude, better looks, and role modeling for children. Brochures on nutrition should contain recipes relevant to the population.

There is real potential for partnership with the business, service, and funding communities.

Businesses related to physical activity, such as sports clothing and equipment manufacturers, are open to considering product or brand-name tie-ins as part of

supporting community physical activity efforts. Developing such business partnerships for in-kind or product support will take perseverance and steady follow-up and require demonstrating the value to the business.

Governmental agencies such as departments of parks and recreation can offer information and community resources. A number of potential funders are interested in considering supporting community physical activity programs. Changes at the policy level may be furthered through the Governor's Council on Physical Fitness.

IV. CONCLUSIONS AND RECOMMENDATIONS

A multiplicity of factors influence behavior change. Efforts to increase physical activity among low-income women must take into account the complexity of each community's resources, individuals' stage of readiness for exercise change, the family context, and perceived obstacles. Programs should create or make use of ready opportunities for physical activity, set realistic goals, and employ multiple informational and motivational techniques responsive to community needs, conditions, and concerns.

The following recommendations emerge from the five formative research studies:

- Maintain careful and inclusive community participation in all aspects of program development, implementation, evaluation, and maintenance.
- Tailor programs to the needs of individual communities, keeping in mind differences in urban/rural environments, language needs, and time constraints on the part of potential participants.
- Make programs relevant to potential participants through appropriate media and messages emphasizing fun, social support, or a family orientation, and through realistic goals and proposed activities, such as walking and running, playing soccer or basketball with children.
- Use a stage-of-exercise approach to reach people at their current exercise level and to offer programs that fit readily into participants' lifestyles.
- Include evaluation strategies in all program planning to improve services, advance knowledge in the field, and satisfy potential partners.
- Explore the variety of potential partnership and funding possibilities, with particular attention to the desire of potential partners to see well-developed program plans and evaluation strategies.

V. STUDY SUMMARIES

A. Literature Review

A literature review explored intervention and non-intervention studies published after 1989 in peer-reviewed journals regarding physical activity programs targeting low-income or ethnic minority women between the ages of 20 and 50 years.

Despite the limitations of few eligible studies (31) and lack of long-term results and cost-effectiveness data or analysis, the review identified key elements of successful programs and made a number of recommendations.

Successful programs...

Are based on community needs assessments, utilizing community advisory boards or collaborative development and/or leadership, and tailored to the distinctive needs, histories and assets of the neighborhood they serve.

Begin with the participants' stage of exercise and aim to take them to the next stage, which may be a more feasible, achievable, and desirable behavioral improvement than prescribed recommendations.

Involve social support for physical activity.

Recommendations:

Perceived social support should be considered an important interpersonal-level factor in developing physical activity programs.

Stage-of-exercise is an important individual variable that should be planned for in program development.

There should be significant community involvement through advisory bodies or coalitions in all aspects of the program: defining needs, identifying strategies, implementing interventions, and evaluating impact. Working with organized community groups will be most successful.

Before designing a community-level intervention, there should be a thorough community assessment examining the needs, attitudes, preferences, barriers, costs, and motivations of the targeted community.

Interventions should attempt to establish community capacity and infrastructure by training community residents and advisory bodies in implementation and in how to navigate the policy and funding arenas to develop continuing support. In addition, building an internal evaluation infrastructure would facilitate data collection and interpretation within the program to ensure continuous quality improvements.

Interventions aimed at the neighborhood level must be culturally competent and be tailored to these specific factors: health behavior; knowledge, attitudes, and beliefs; cultural concepts and dimensions related to health practices; and local historical and environmental contexts. Interventions should be able to reach across cultures as appropriate.

Research on interventions targeting underserved populations is needed, including research that could demonstrate how theoretical models can predict changes in physical activity levels or could be adapted to make more effective predictions.

Multiple evaluation methods, instruments, and measures are needed to address the difficulty of adequately assessing impact measures, such as self-reported physical activity levels, and overcome such challenges as recall bias, study subject data overload, and unclear definitions of what daily activities constitute "physical activity."

B. Marketing Trends

Twenty local initiatives and community outreach campaigns around the country designed to improve physical activity levels were reviewed for innovative strategies used with a variety of populations. Many of the programs are built on partnerships between health departments and their communities. The programs reviewed encompassed the following types of strategies and activities:

Information dissemination:

Bus outfitted as a mobile wellness classroom for disease prevention, health promotion and physical-activity-related programs goes to schools, worksites, and hard-to-reach neighborhoods

CDC materials and other information about physical activity is sent to those who sign up on a local e-mail list and posted on a community Web site

Extended media campaigns address perceived barriers, such as preferring to spend free time with friends, countered by images of friends doing physical activities together

Motivation enhancement:

Mile markers and kiosks with physical activity and health information placed along paths at the zoo

TV weather forecasters broadcast a climate-appropriate physical activity tip; radio traffic reporters offer health promotion or injury-prevention messages during peak drive times

Signs at mall escalators encourage people to use the adjacent stairs

Parents are encouraged to walk children to school, creating family physical activity

New uses of existing community resources:

Walking programs on the grounds of a local cemetery

Water aerobics in an underused motel swimming pool

Walking trails in a wildlife preserve

High school fitness center and recreation facilities open to community use after school hours

C. Key Informant Interviews with Community-Based Organizations

Fifteen key information interviews were conducted with local leaders from city, school-based, nutrition, and church-based programs. Each interview asked about the barriers to physical activity and the motivators, resources, and tactics needed to create a successful health intervention program locally and statewide.

Key findings:

Barriers include time constraints and access issues such as cost, location, safety, lack of transportation.

Motivators were identified as results to be gained (desire to feel and look better and have more energy); positive images of health rather than negative messages of illness and death.

Volunteers are useful to help lead classes, track blood pressure and heart rates, provide health information.

Leaders would partner with others in a physical activity campaign in order to gain educational materials and the opportunity to collaborate.

Program-related incentives to participate that carry the 5-a-Day message are useful, such as T-shirts, water bottles, magnets, sweatbands, nutritious snacks, pens, balloons, aprons.

Strategies being used:

Senior walking clubs; adult and youth sports, swimming and aerobics, dance classes

Health fairs offering nutrition education, free blood pressure checks

Gardening programs

Weekly community TV show, "What's Cooking?"

Activities located at community venues (schools, community centers, Ys, parks)

Trickle-up theory: once kids start physical activity it filters up to the parents and grandparents

Church-sponsored programs in three communities: 1. On-site, low-cost full fitness center, with coaches designing personal programs; the center also organizes walking clubs and a walk-a-thon. 2. Karate and low-impact aerobics classes along with walking clubs. 3. Monthly nutrition classes, weekly aerobics and Tae Bo classes.

Recommendations:

Present physical activity and nutrition together to create "a message of overall health."

Make instructional aids available, such as tip sheets for educators, and videos demonstrating activities that leaders could learn from and show participants. Develop a teaching tool with something like a "physical activity pyramid" that shows people how they can get 30 minutes of activity daily.

Promote the message that exercise is not actually having to go to the gym; it's everywhere around you.

Promote physical activities a family can do together at or near home.

D. Key Informant Interviews with Potential Funders and Partners

Fifteen key individuals whose programs and businesses support physical activity nationally or statewide were interviewed to assess potential partnership and funding opportunities.

Key findings:

There is a real potential for partnerships with the business, service, and funding communities.

Developing business partnerships that might provide in-kind or product support will take perseverance and steady follow-up, and require demonstrating the value to the business.

Governmental agencies such as California Parks and Recreation can offer community resources, including swimming pools, tennis courts, bike paths and trails, along with appropriate publications. The California Healthy Cities and Communities Project can provide funding and is particularly enthusiastic about programs in the PAIC target areas.

The national nonprofit, Operation Fit Kids, which rounds up and distributes used physical activity equipment, is interested in the potential of partnering with the project.

Other funding programs, including the Robert Wood Johnson Foundation, the California Endowment, and Mervyn's all voiced interest in seeing proposals for direct or matching funds for the project.

The Governor's Council on Physical Fitness could provide a coalition-building venue.

Recommendation:

Explore the variety of partnership and funding possibilities that exist, with particular attention to the desire of potential partners to see well-developed program plans and evaluation strategies.

E. Focus Groups

Six focus groups (two each in Los Angeles, Riverside, and Berkeley/Oakland) with low-income mothers who were not regular exercisers focused on developing concepts for promoting physical activity and testing potential campaign materials. In four groups, members were African-American, Anglo, and Latina women. The other two groups were with Latinas in Los Angeles and Riverside who mainly spoke Spanish; these groups were conducted in Spanish.

Key Findings:

WALKING is the physical activity most women engage in, most often as a component of daily responsibilities at home and work. Participants were not aware of the recommendation for 30 minutes of daily physical activity and recognized the need—and the possibility—to do more to achieve this goal.

ALL AGREED that physical activity and good nutrition go together to create good health.

PERCEIVED BENEFITS: Better health, better self-esteem, better looks, increased sexual drive and stamina, positive attitude, role modeling for children

PERCEIVED BARRIERS:

Time and lack of enjoyment in physical activity

Family responsibilities were strongly seen as a barrier in terms of time available to do physical activity or take part in family-oriented programs

The need for childcare or physical activities that include children

Lack of available and affordable facilities (health clubs and gyms)

Need for social support to stay with a daily schedule of physical activity. Very few women were involved with a church or other community organization that might provide such support.

CAMPAIGN CHANNELS: Broadcast and print media, grocery stores; doctors, clinics and schools to add credibility to the information.

CAMPAIGN MESSAGES: Ads should have relevance, including average-looking people from diverse backgrounds or relevant situations (playing basketball, soccer at the park), with an emphasis on fun and family orientation.

A BROCHURE about healthy eating, with recipes, garnered the most interest.

SLOGANS: No clear consensus or preferences among seven slogans presented.

GRAPHICS: Bright colors, images of popular fruits (especially apples), images of people engaging in physical activities the target group can relate to, such as running and walking. Large, simple text, words such as "enjoy" and "energize" in reference to eating and physical activity.

Recommendations:

Physical activity programs should be integrated into the target population's daily lives and fit into busy schedules; they should include some activities that can be done with children.

Programs should revolve around easily accessible activities such as walking.

Building in social support will increase the likelihood of people maintaining physical activity.

Readily understandable campaign messages using a variety of slogans should be developed in English and Spanish and disseminated in commonly used and credible locations, including schools, grocery stores, and health clinics.

Campaign materials should be brightly colored, showing average-looking people engaging in activities relevant to the target population's lifestyle, with emphasis on fun and family involvement.

Campaign materials should stress the benefits of better health, greater self-esteem, positive attitude, better looks, and role modeling for children.

Brochures promoting good nutrition should contain recipes relevant to the target population.

F. Environmental Scans

Three study sites (one each in Oakland, Los Angeles, and Riverside) were assessed for factors that may support or inhibit physical activity, including "walkability," availability of recreational facilities and their programs for women, and community gardens. A resource map for each community was produced. The sites were chosen for their concentration of large African-American and Latino populations, significant proportions of low-income families, and high rates of food stamp eligibility. In addition, each site has extensive recreation facilities near its core which could provide intervention sites for a physical activity program.

Key Findings:

OAKLAND:

Walking and biking: 80% of the tracts studied were considered "walkable" and many people report walking or biking to work.

Recreational facilities: While scores are low, better than the other two communities. (1 facility to every 14,500 people; 1 pool for every 36,000 people) Few recreation center activity programs are tailored to women.

Community gardens: Six in the area.

LOS ANGELES:

Walking: Half the tracts are walkable, the other half are "at least somewhat walkable."

Recreational facilities: A few recreational facilities; positive offerings of programs for women, including team leagues in several sports. (1 facility to every 35,000 people; 1 pool for every 279,000 people)

Community gardens: Four in the area.

RIVERSIDE:

Walking and biking: Somewhat walkable. Recreational bike trail through the study area. Large parks and open space areas.

Recreational facilities: (1 facility to every 35,000 people; 1 pool for every 60,500 people) The city contracts with private facilities for subsidized recreation classes in a number of programs.

Community gardens: Data not available.

Recommendations:

Increase and advertise programming for women at public recreation facilities.

Investigate what deters or encourages people to walk or bike in each area and compare the results to existing walking rates among residents.

Encourage development of affordable fees at public and private community-based facilities for low-income households or those receiving public assistance.

Utilize environmental scan maps representing factors that may help to support or inhibit physical activity program efforts.